

United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Clean Water Act of 1987, P.L. 100-4, the "Act,"

Alyeska Pipeline Service Company  
1835 South Bragaw Street  
Anchorage, Alaska 99512

is authorized to discharge from the Valdez Marine Terminal (VMT) located near Jackson Point, Alaska, to receiving waters of Port Valdez in accordance with discharge points, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on May 21, 1997

This permit and the authorization to discharge shall expire at midnight, May 21, 2002

Signed this 21st day of April, 1997

/s/ Philip G. Millam  
Philip G. Millam  
Director, Office of Water  
Region 10  
U.S. Environmental Protection Agency

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## **I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the effective period of this permit, the Permittee is authorized to discharge from outfalls 001 and 002 and activities cited in Part II.E.8. of this permit, subject to the restrictions set forth herein. This permit does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not consistent with the operation of the facility as disclosed in the permit application, or any pollutants that are not identified in the application.

### **A. Ballast Water Treatment Facility (Outfall 001)**

During the effective period of this permit, the Permittee is authorized to discharge treated ballast and bilge water, storm water, and other waste waters from Outfall 001. All discharges are subject to the following conditions.

Waste streams from the sources listed by the Permittee in the "Best Management Practices Plan for the Valdez Ballast Water Treatment Facility," (Alyeska, 1996, or subsequent revisions of the BMP Plan), are permitted for treatment and discharge by the BWT through Outfall 001 in accordance with the requirements of this permit. Any waste stream not listed in the BMP Plan or in quantities significantly greater than the listed estimated amounts in the BMP Plan, shall not be discharged unless specifically authorized by EPA, in consultation with ADEC, prior to discharge.

The mixing zone for this discharge where human health and chronic aquatic life criteria apply is defined as follows:

- The top boundary shall be at all times fourteen (14) meters (46 feet) below the receiving water surface,
- The mixing zone shall extend to the bottom of the water column, but shall exclude the bottom sediments, which shall remain subject to protection under the State's Water Quality Standards, and
- The horizontal (lateral) boundaries of the mixing zone are shown in Figure 1 in this document.

The mixing zone for this discharge where acute aquatic life criteria apply is defined as follows:

- The mixing zone shall extend to the bottom of the water column, but shall exclude the bottom sediments, which shall remain subject to protection under the State's Water Quality Standards, and
- The remaining boundary of the mixing zone shall be at all times fifteen (15) meters (50 feet) in all directions from the diffuser.

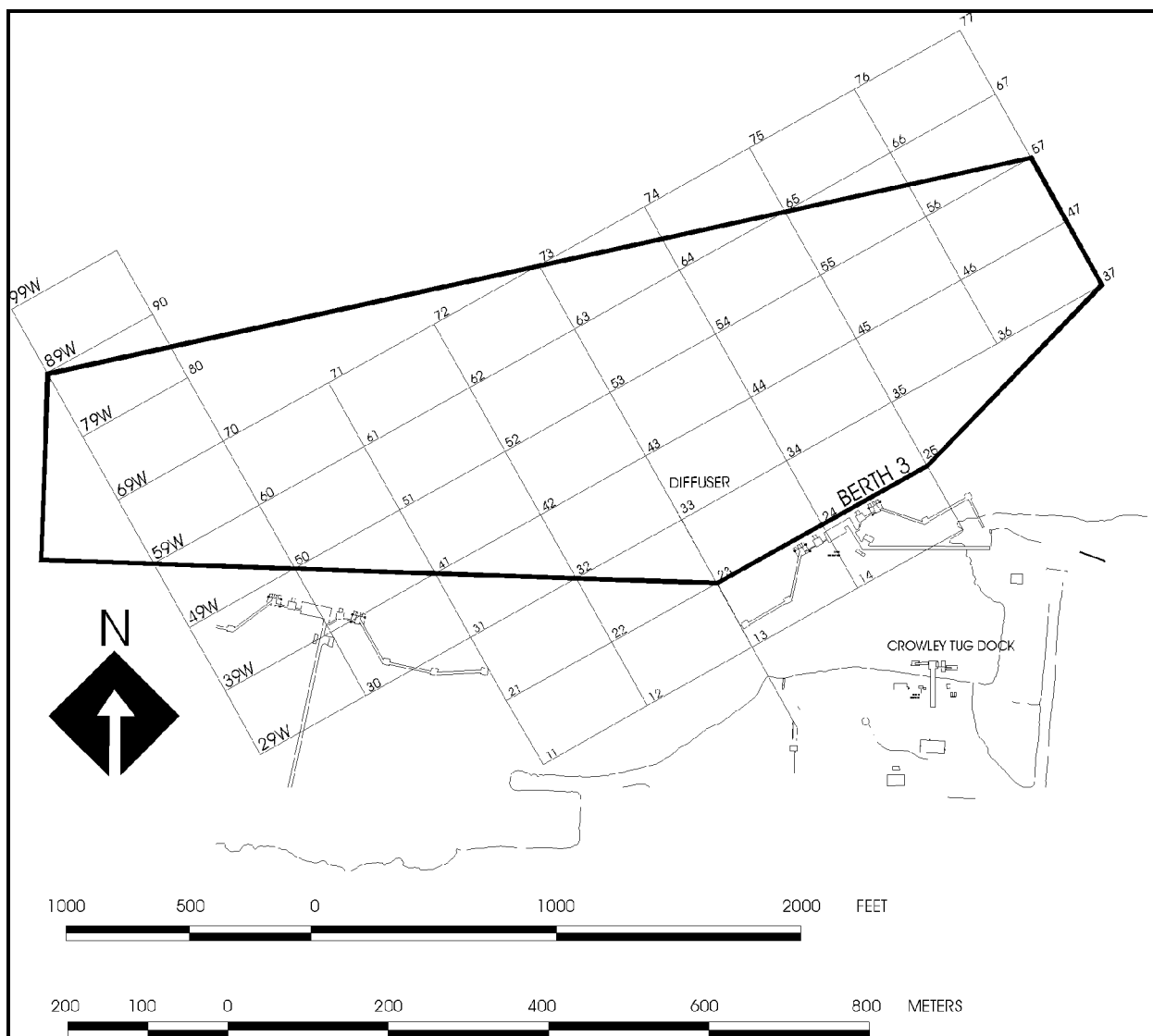


Figure 1: Diagram of mixing zone for Outfall 001 as defined by ADEC in their 401 Certification. The dark line is the lateral boundary of the mixing zone where human health and chronic aquatic life criteria apply.

1. Effluent Limitations. Discharges from Outfall 001 shall be limited by the Permittee as specified in Table 1:

Table 1: BWT Discharge (Outfall 001) Effluent Limitations			
Parameter	Daily Maximum	Monthly Average	Units
BETX <sup>1</sup>	1.0	0.3	mg/l
TSS (except for the 24 hour composite samples collected on the day of and the day after stripper activation)	40	25 <sup>2</sup>	mg/l
TSS (on the day of and the day after stripper activation)	170	NA	mg/l
Flow <sup>3</sup>	30	21	mgd
pH	Between 6.0 - 8.5 SU at all times		Standard units

Notes:

1/ BETX is the sum of the measured concentrations of benzene, ethylbenzene, toluene, and the xylene isomers. Each aforementioned component shall be separately quantified by the methods given in 40 CFR Part 136, and the total reported as BETX on the DMR.

2/ TSS measured on the day of and the day after stripper activation shall not be included in the calculation of the monthly average.

3/ Flow shall be measured using the existing continuous flow meter or other methods of similar accuracy (at least  $\pm 5\%$ ), as approved in advance by EPA, in consultation with ADEC.

2. Effluent Monitoring Requirements. The Permittee shall monitor the effluent from the ballast water treatment system as specified in Table 2 below, subject to the other monitoring and reporting requirements set forth in this permit.

Table 2: BWT Discharge (Outfall 001) Monitoring Requirements			
Parameter	Measurement Requirements	Sample Type	Reported Value(s)
BETX <sup>1</sup>	3/week <sup>2</sup>	Grab	Maximum daily and monthly average (mg/l)
TSS <sup>2</sup>	3/week (and on the day of and the day after stripper activation) <sup>2, 3</sup>	24 hr. Composite	Maximum daily and monthly average (mg/l)
Flow	Continuous	Recording	Maximum daily and monthly average (mgd)
pH	Continuous	Recording	Maximum, minimum and all exceedances
WET <sup>4</sup>	Quarterly	Grab	TUc
TAqH	Monthly <sup>5</sup>	Grab	Maximum Value (mg/l)
Dissolved Inorganic Phosphorous	Monthly	Grab	Concentration (mg/l as P)
Ammonia	Monthly	Grab	Concentration (mg/l as N)
Density	Weekly	Grab/Hydrometer	Maximum daily & monthly average (sigma t)
Total Rec. Zinc	Quarterly	24 hr. Composite	Concentration (mg/l)

Notes:

1/ BETX is the sum of the measured concentrations of benzene, ethylbenzene, toluene, and the xylene isomers. Each of the aforementioned components shall be separately quantified by the methods given in 40 CFR Part 136, and the total reported as BETX on the DMR.

2/ Samples collected to comply with the 3/week measurement frequency shall be collected at least 24 hours apart.

3/ TSS samples shall be collected daily. A minimum of three TSS samples shall be analyzed per week. If the strippers are activated then the effluent samples collected on the day of and the day after stripper activation shall also be analyzed for TSS. Where necessary, the TSS sample(s) associated with stripper activation may satisfy the three times per week measurement frequency monitoring requirements. The Permittee shall submit with the DMR a monthly air stripper activity report which identifies the dates and times of stripper activation and deactivation.

4/ See Part III.A. of this permit for specifics regarding the WET monitoring requirement.

5/ TAqH analyses shall be conducted in accordance with 18 AAC 70.020, Note 8. If TAqH is not measured in excess of 0.54 mg/l during the first year of the permit, then the monitoring frequency for TAqH may be reduced to quarterly upon request by the Permittee.

3. Other Limitations and Requirements.

- a. Surface and Shoreline. The discharge shall not, alone or in combination with other substances, cause a film, sheen or discoloration on the surface of the receiving water or adjoining shorelines.
- b. Clean Ballast. Introduction of water, including "clean" ballast, to the treatment system for the purpose of achieving the effluent limitations at Part I.A.1. of this permit is prohibited. "Clean" ballast is segregated ballast waters which meet the effluent limitations without treatment.
- c. Incoming Ballast Water Review. In order to determine whether incoming ballast water for each tanker is contaminated with pollutants not allowed for discharge, the Permittee shall (1) examine the oil record book and (2) obtain a completed copy of Alyeska's VMT Ballast Water Survey Form (see BMP Plan Appendices), containing specific information on the amount and constituents of the ballast and bilge water to be off loaded.
  - (1) If the VMT Ballast Water Survey Form indicates that the ballast water contains substances which are not permitted for discharge at the BWT (e.g., contains a cleaning agent which does not meet the criteria) then the ballast water shall not be off loaded, unless specific approval is obtained from EPA.



- (2) The Permittee shall keep a record of the above determinations for each tanker (copies of pertinent pages from the tanker's oil record book and completed VMT Ballast Water Survey Form) at the facility and make the records available to EPA and/or ADEC upon request.
- d. Influent Sampling. The Permittee shall collect and analyze ballast water influent samples from deballasting tankers as specified by ADEC. Utilizing a random selection process, ADEC shall notify the Permittee no later than 24 hours prior to collection of an influent sample so that sampling personnel will be available. The Permittee shall be notified by ADEC at the time of sampling which tanker is to be sampled. Sample collection and analysis shall be performed in accordance with the QA Plan (see Part III.C. of the permit). Samples shall be analyzed for halogenated semi-volatile and volatile compounds listed in 40 CFR 423, Appendix A, titled 126 Priority Pollutants. Sampling frequency shall be no greater than 4 times in a rolling 12 month period unless significant change to the tanker trade occurs (e.g., new foreign port of call is added to the Trans-Alaska Pipeline System trade).
- If significant change to the trade occurs then the ADEC may adjust the random selection process accordingly and sampling frequency may be increased to no greater than 12 times in a rolling 12 month period. Based upon the analytical results, EPA, in consultation with ADEC, may reduce the sampling frequency.
- In the DMR submittal for the months in which sampling occurs, the Permittee shall identify the date, time, and vessel which has been sampled. The permittee shall provide laboratory analytical results to ADEC within 60 days of sampling, keep a record of the above sampling incidents at the facility, and make the records and analytical results available to EPA upon request.
- e. Permittee Notice to Tankers. The Permittee shall notify active tanker vessels in the Trans-Alaska Pipeline System trade within 30 days of BMP Plan changes which affect those vessels.
- f. Scraper Pigs. The readily removable crude oil residues from scraper pigs shall be drained off and returned to the crude tanks. After such easily removable residues are removed, cleaning and wash down water used to clean off the crude which requires scrubbing may be treated through the BWT.

- g. Sludge Handling. Sludge removed from the treatment system during cleaning of the treatment units shall not be reintroduced into the treatment system or discharged to waters of the United States.

The Permittee shall notify ADEC twenty-four (24) hours in advance of any BWT or other sludge removal activity, and shall provide EPA and ADEC upon request with information on the Permittee's processing of sludge and disposal of solids.

**B. Sanitary Wastes (Outfall 002)**

The Permittee shall limit discharges from the sanitary waste treatment system as specified in Table 3 below. All figures represent maximum effluent limits. The Permittee shall comply with the following effluent limits at all times, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

Outfall 002 is located at latitude 61° 05'14" N and longitude 146° 23' 24" W. The outfall shall discharge to at least 12 meters of water. The mixing zone for the sanitary waste discharge is defined as a cylinder with a radius of 10 meters (33 feet) centered on the outfall, rising vertically to the receiving water surface. The mixing zone extends from the marine bottom to the receiving water surface.

1. Effluent Limitations. Discharges from Outfall 002 shall be limited by the Permittee as specified in Table 3:

Table 3: Sanitary Wastes Discharge (Outfall 002) Effluent Limitations				
Parameter	24 hr Maximum	7 day Average	30 day Average	Units
Flow rate	10,000	NA	NA	gpd
BOD <sub>5</sub>	60	45	30	mg/l
TSS	60	45	30	mg/l
pH	Between 6.0 - 9.0 SU at all times			Standard Units

2. Effluent Monitoring Requirements. The Permittee shall monitor the effluent from the sanitary waste treatment system as specified in Table 4 below, subject to the other monitoring and reporting requirements set forth in this permit.

Table 4: Sanitary Wastes Discharge (Outfall 002) Monitoring Requirements			
Parameter	Measurement Requirements	Sample Type	Reported Value(s)
Flow rate	Continuous	Recording	Max. daily & mon. avg. (gpd)
BOD <sub>5</sub>	Monthly	Grab	Max. daily, weekly & mon. avg. (mg/l)
TSS	Monthly	Grab	Max. daily, weekly & mon. avg. (mg/l)
pH	Daily	Grab	Maximum, minimum and all exceedances
Fecal coliform bacteria	Quarterly	Grab	#FC/100 ml

3. Other Limitations.
- The discharge shall not, alone or in combination with other substances, cause a film, sheen or discoloration on the surface of the receiving water or adjoining shorelines.
  - There shall be no discharge of floating solids, garbage, grease, or foam.

## **II. BEST MANAGEMENT PRACTICES (BMP) PLAN AND POLLUTION PREVENTION REQUIREMENTS**

### **A. Purpose**

Through implementation of the BMP Plan and pollution prevention requirements, the Permittee shall prevent or minimize the generation and the potential for release of pollutants from the facility to the waters of the United States. Actions taken to reduce or eliminate the generation and release of pollutants to waters of the United States shall avoid, to the extent practicable, the transfer of pollutants to the air and land.

### **B. Objectives**

The Permittee shall ensure that the BMP Plan is consistent with the following objectives for the control of pollutants:

1. The number and quantity of pollutants generated and potentially discharged from the facility to waters of the United States shall be minimized by the Permittee to the extent technically and economically feasible.
2. Under the BMP Plan the Permittee shall ensure proper operation and maintenance of the treatment facility.
3. The Permittee shall establish specific objectives for the control of pollutants by addressing the pollution prevention requirements in Part II.C. below.

### **C. Pollution Prevention Requirements**

The Permittee shall establish specific performance objectives for preventing or reducing pollutants by ensuring that the following pollution prevention (P2) planning activities and evaluations are conducted.

1. Pollution Prevention Framework. The Permittee shall submit a framework document to EPA and ADEC for incorporating pollution prevention into Valdez Marine Terminal activities that discharge (or have the potential to discharge) into waters of the United States no later than one year after the effective date of the permit. EPA, in consultation with ADEC, shall have the right to disapprove the P2 Framework within 60 days of receipt by the EPA and ADEC, after which time such changes shall be deemed approved, if neither Agency disapproves them. The framework document shall include:

- a. A written policy of management support and commitment for planning and implementation of pollution prevention goals developed during the planning process.
  - b. The methodology for considering the technical and economical feasibility of a proposed pollution prevention option.
  - c. A statement of specific and measurable pollution prevention objectives, goals, and priorities for the Valdez Marine Terminal. Standards of measure may be quantitative or qualitative depending on the type or objective, priority, or goal.
  - d. Identify any significant toxic and/or hazardous products and waste streams; the processes which use these products or generate these waste streams; and opportunities for eliminating or reducing the use of these products and the generation of these waste streams.
  - e. Summarize current pollution prevention efforts at the terminal and results of these efforts. Evaluate and prioritize pollution prevention and reduction opportunities. Establish a schedule for implementing technically and economically feasible pollution prevention opportunities.
2. Other Pollution Prevention Requirements. The Permittee shall prepare a pollution prevention report on the status of efforts to evaluate the technical and economic feasibility of implementing a monitoring program to meet the objectives below, and, if a monitoring program is determined to be technically and economically feasible, establish a schedule for implementing a monitoring program. The report shall be submitted to EPA and ADEC no later than one year after the effective date of the Permit. Additional status reports, if necessary, shall be included in the annual P2 report described under Part II.C.3. The objectives are as follows:
- a. Determine if discharges of oil and grease, total petroleum hydrocarbons, TSS or similar pollutants occur at the BWT facility that are not detected under the current monitoring program.
  - b. Provide detection of sheen producing oil discharges.

- c. Determine if discharges described under Part II.C.2.a. can be correlated to other plant operations.
  - d. Gather data that could be used to determine if technically and economically feasible pollution prevention measures could be instituted to prevent discharges described under Part II.C.2.a.
- 3. Annual P2 Reports. The Permittee shall prepare annual P2 reports on the status of efforts to meet stated pollution prevention objectives, goals, and priorities, and submit the report to the EPA and ADEC. The first progress report shall be due two years after the effective date of the permit. Subsequent reports shall be due annually on the anniversary of the effective date (see also Part II.E.3.). The P2 reports shall:
  - a. Identify progress towards meeting P2 objectives, goals, and priorities. Problems encountered and/or highlights of efforts to prevent pollution shall also be identified.
  - b. Describe pollution prevention projects implemented and for each project, to the extent possible (considering technical and economic feasibility) identify:
    - (1) the type and quantity of toxic and/or hazardous products reduced or eliminated and
    - (2) the type and quantity of waste streams reduced or eliminated.

**D. BMP Plan Development**

The Permittee shall develop a BMP Plan (Alyeska, 1996 or subsequent modifications) which achieves the objectives and the specific requirements listed below. The Permittee shall, if necessary, modify the Plan, to incorporate practices to achieve the objectives and specific requirements listed below. In completing this task the Permittee can incorporate, or cross-reference existing pollution prevention, BMP Plan, Safe Operating Procedures or other plans prepared by the Permittee in accordance with other state and federal requirements and/or directives internal to the facility.

A copy shall be submitted to EPA and ADEC for approval no later than six months from the effective date of the permit. EPA, in consultation with ADEC, shall have the right to disapprove the BMP Plan within 60 days of

receipt by the EPA. If neither Agency disapproves them such changes shall be deemed approved.

#### **E. BMP Plan Requirements**

The BMP Plan shall be consistent with the objectives in Part II.B. above and the general guidance contained in the publication entitled "Guidance Manual for Developing Best Management Practices" (U.S. EPA, 1993a) or any subsequent revisions to guidance documentation. The BMP Plan shall continue to address the standard components of BMP Plans (ibid., see Chapter 2). The BMP Plan shall also:

1. Be documented in narrative form, and shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices.
2. Ensure that the requirements of the BMP Plan are considered as part of planned facility modifications, and that construction and supervisory personnel are aware of and take into account possible spills or releases of pollutants during construction.
3. Require an annual BMP Plan review by the responsible manager and the BMP Committee. The Plan shall also require an annual statement that the above reviews have been completed and that the BMP Plan fulfills the requirements set forth in this permit. The statement shall be certified by the dated signatures of each BMP Committee member. This statement shall be submitted to EPA and ADEC on or before July 1st of each year of operation under this permit after the initial BMP submittal as required by Part II.D. above (see also Part II.C.2.).
4. Establish specific best management practices to meet the objectives identified in Part II.B. addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.
5. Continue to ensure proper management of solid and hazardous waste in accordance with regulations promulgated under the Resource Conservation and Recovery Act (RCRA) and the Alaska Solid Waste Management (ASWM) Regulations (18 AAC 60). Management practices required under RCRA and ASWM regulations shall be referenced in the BMP Plan.

6. Continue to reflect requirements for Spill Prevention, Control, and Countermeasure plans under Section 311 of the Act and 40 CFR Part 112 and may incorporate any part of such plans into the BMP Plan by reference.
7. Reflect appropriate storm water controls to eliminate, to the extent practicable, the contamination of storm water runoff at the Valdez Marine Terminal through the development and implementation of storm water pollution prevention practices. Monitoring of storm water discharges shall meet the minimum monitoring requirements of 40 CFR 122.44(i)(4)(i, ii, and iii). If the evaluation required by 40 CFR 122.44(i)(4)(i) identifies that additional measures are necessary to reduce pollutant loading, then the storm water pollution prevention practices shall be amended within six months to appropriately reduce pollutant loading. The term “storm water” as used in this paragraph is given the meaning of “storm water” associated with industrial activity as defined in 40 CFR 122.26(b)(14).
8. Include the following specific BMP requirements:
  - a. BTT Monitoring. Dissolved oxygen shall be continuously monitored in the BTTs and temperature shall be continuously monitored at the effluent sampling location. Analytical results shall be made available to the EPA and ADEC upon request.
  - b. Construction/Maintenance Activities. The Permittee shall develop provisions in the BMP Plan to maximize the collection and minimize the discharge of wastes generated during construction and/or maintenance activities from the berths, Valdez Marine Terminal docks, main firewater pump house, boat launches, and navigational/mooring buoys. Activities covered shall include, but are not limited to, surface preparation, hydro blasting, cleaning, demolition, metal cutting, and welding. The Permittee shall develop best management practices within the BMP Plan to minimize to the extent technically and economically feasible the discharge of construction/maintenance wastes. See also the reporting requirements for construction/maintenance activities at Part III.M.
  - c. Valdez Marine Terminal Fire Water System Discharges. The Permittee shall develop BMPs to limit, manage, and control the discharges from the jockey pump, firewater pump



testing and maintenance, berth fire foam system testing, and hydrant testing and maintenance. The BMPs shall to the extent possible, (1) direct discharges to the oily water sewer system, (2) minimize fire water discharges during snowless conditions, (3) minimize discharges into No Name and Dayville Creeks, (4) discharge when the ground surface is covered with snow and/or ice, and (5) minimize floating residue from the berth fire foam testing system.

- d. Coagulants and Other Treatment Chemicals. The Permittee shall amend the BMP Plan to include coagulants and other treatment chemical in the "Description of Influent" in Tables 2-1 and 2-2 of the BMP Plan. Until the Plan is amended, the Permittee shall notify EPA and ADEC in writing at least 2 weeks prior to each change of coagulants or other treatment chemicals used in the BWT facility. Nutrients for the biological treatment process shall not be considered coagulants or treatment chemicals. This notification shall include available information on the composition, toxicity, and dose to be used.
- e. Air Stripper Media Maintenance Practices. The Permittee shall develop provisions in the BMP Plan to prevent the discharge of air stripper media.

#### **F. Documentation**

The Permittee shall maintain a copy of the most current BMP Plan, along with a copy of the NPDES Permit AK-002324-8, in the Ballast Water Treatment Facility control room. The Permittee shall make the BMP Plan available to EPA and ADEC upon request.

#### **G. BMP Plan Modification**

The Permittee shall modify the BMP Plan whenever there is a physical or operational change in the facility which materially increases the potential for a discharge of pollutants. The Permittee shall modify the BMP Plan whenever the plan does not effectively address the BMP Plan and P2 requirements stated above in Part II of this permit. Any such changes to the BMP Plan shall be consistent with the purpose, objectives, and specific requirements listed above. All changes in the BMP Plan shall be reviewed by the responsible manager and shall be reported to EPA and ADEC in writing. EPA, in consultation with ADEC, shall have the right to disapprove any such changes within 60 days of receipt, after which time such changes shall be deemed approved.



### III. MONITORING, RECORDING, AND REPORTING REQUIREMENTS

#### A. Whole Effluent Toxicity Monitoring Requirements.

The Permittee shall conduct whole effluent toxicity (WET) tests on samples of the ballast water treatment system effluent (Outfall 001) as indicated below.

Chronic Toxicity Testing. The Permittee shall perform chronic toxicity tests of the effluent in accordance with Parts III.A.1-3 and 7-12 below. Beginning with the first calendar quarter after the effective date of this permit, the permittee shall conduct quarterly chronic toxicity tests.

1. Test Species and Methods. The Permittee shall conduct chronic toxicity testing with one of the following echinoderms:
  - a. the purple sea urchin, *Strongylocentrotus purpuratus*, or
  - b. the sand dollar, *Dendraster excentricus*.

Species shall be selected based on the availability of organisms in spawning condition. The presence of chronic toxicity shall be estimated using the echinoderm fertilization test as specified in section 16 of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (U.S. EPA, 1995).

2. Dilution Series. The permittee shall conduct testing on a series of six dilutions ranging from zero percent effluent (control) to 100 percent effluent with a minimum of four replicates per concentration. Based on available data, dilutions shall be selected that will bracket the IC<sub>25</sub>. Salinity adjustments shall be used if appropriate. Concurrent testing as appropriate with reference toxicants shall also be conducted (see Part III.A.9.b. below).
3. Reporting Units. The chronic toxicity test results shall be reported in TUC, where  $TUC = 100/IC_{25}$  (in percent effluent).

Acute Toxicity Testing. The Permittee is required to perform annual acute toxicity tests of the effluent in accordance with 4 - 12 below.

4. Test Species and Method. The Permittee shall conduct 96-hour static renewal tests with the invertebrate mysid, *Mysidopsis bahia*. The presence of acute toxicity shall be determined as specified in Methods for Measuring Acute Toxicity of Effluents to Freshwater and Marine Organisms, Fourth Edition (U.S. EPA, 1993b).
5. Dilution Series. The permittee shall conduct testing on a series of six dilutions ranging from zero percent effluent (control) to 100 percent effluent with a minimum of four replicates per concentration. Based on available data, dilutions shall be selected that will bracket the LC50. Salinity adjustments shall be used if appropriate. Concurrent testing with reference toxicants shall also be conducted.
6. Reporting Units. The acute WET test results shall be reported in TUa, where TUa equals 100/LC50 in percent effluent.

Provisions Applicable to Both Acute and Chronic Tests.

7. Sample Collection. Testing shall be conducted on grab samples of BWT effluent collected at the NPDES sampling location. Each sample shall be large enough to provide enough effluent to conduct toxicity tests, as well as chemical tests required in paragraph 8 below.
8. Chemical Analyses. Chemical testing for the parameters for which effluent limitations exist shall be performed on a split of each sample collected for WET testing. To the extent that the timing of sample collection coincides with that of the sampling required in Part I.A.1., chemical analysis of the split sample will fulfill the requirements of Part I.A. as well.
9. Quality Assurance Requirements.
  - a. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration).
  - b. If the test organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted.

- c. If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, then the Permittee must resample and retest within fourteen (14) days.
- d. Control and dilution water should be receiving water or lab water, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

10. Reporting Requirements.

- a. The full toxicity testing report shall be submitted within 45 days after completion of the test. At a minimum, the full report shall consist of:
  - (1) the toxicity test results,
  - (2) the dates of sample collection and initiation of each toxicity test,
  - (3) the flow rate at the time of sample collection,
  - (4) the results of the analyses for chemical/physical parameters on split effluent samples as required in paragraph 8 above, and
  - (5) all raw data and statistical analyses from the tests, including reference toxicant tests.
- b. WET test results shall be prepared in accordance with the Report Preparation chapter in the relevant toxicity testing manual. It is also suggested that the Permittee submit the data on an electronic diskette (3.5") in the Toxicity Standardized Electronic Reporting Form (TSERF). TSERF will be provided by EPA.

11. Adjusted Monitoring. Based upon the WET monitoring results, EPA, in consultation with ADEC, may adjust the WET monitoring requirements. EPA shall not reduce the requirements without the concurrence of ADEC. Increases in the testing frequency and number of species tested shall be made in a permit modification in accordance with 40 CFR 122 and 124.
12. Reopener. This permit may be modified in accordance with the requirements set forth at 40 CFR Parts 122 and 124, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information.

## **B. Environmental Monitoring Requirements.**

1. Purpose. The purpose of the environmental monitoring requirements is to address the following overarching question:  
  
Is there any change to the assessment that, while not all components of the Port Valdez ecosystem have been assessed, the environmental monitoring of Port Valdez to date suggests that the ecosystem is not being adversely impacted by the BWT discharge?
2. Objectives. The Permittee shall develop and implement an environmental monitoring program which addresses the following objectives:
  - a. Early detection/warning of any significant adverse effects due to the BWT discharge,
  - b. Ensure compliance with state water quality standards,
  - c. Determine statistically significant and ecologically significant changes in the sediment hydrocarbon concentrations over time and distance due to the BWT discharge,
  - d. Determine statistically significant and ecologically significant changes in the biota of subtidal Port Valdez,
  - e. Determine whether changes to the monitoring program are warranted, and
  - f. Gather information for permit renewal or future regulatory decisions (e.g., trends, exceedances of benchmarks or criteria, etc.).
3. Monitoring Stations. Locations and approximate depths of stations for environmental monitoring sampling collection are identified in Table 5 and Figure 2. The latitude and longitude coordinates are the intended sampling locations. The depth values reflect the ranges reported previously.

Table 5: Location of Environmental Monitoring Stations				
Area	Station Number	Depth Range (meters)	Latitude (North)	Longitude (West)
Diffuser	D33	48-80	61° 05.42'	146° 23.07'
Near-field Shallow	D25	61-81	61° 05.47'	146° 23.32'
	D51	65-100	61° 05.42'	146° 23.52'
	D69	59-100	61° 05.43'	146° 23.85'
	80	65-90	61° 05.52'	146° 24.33'
	82	37-67	61° 05.50'	146° 22.40'
Near-field Deep	D73	195-245	61° 05.59'	146° 23.30'
	D77	235-238	61° 05.75'	146° 22.75'
	16	225-240	61° 05.90'	146° 21.80'
Far-field Deep	11	197-251	61° 06.35'	146° 20.00'
	40	230-253	61° 06.35'	146° 28.70'
	45	240-250	61° 06.35'	146° 32.30'
	50	243-250	61° 06.35'	146° 35.70'

4. Receiving Water Monitoring. The receiving water monitoring shall address the question of whether the BWT discharge is adversely impacting survival, growth, or reproduction of marine species in the water column by performing the following monitoring:
  - a. Effluent Chemistry. The Permittee shall use effluent chemistry data collected under Part I of this permit to quantitatively assess whether applicable water quality standards are being met at the edge of the chronic and acute mixing zones.
  - b. Effluent Toxicity. The Permittee shall use whole effluent toxicity testing data collected under Part III.A. of this permit to quantitatively assess whether the corresponding water quality standards are being met at the edge of the mixing zone.
5. Sediment Monitoring. The sediment monitoring program shall address the question of whether the contaminants discharged by the BWT bioaccumulate, concentrate, or persist above natural levels in sediments or in benthic infauna to significantly adverse levels by performing the following monitoring.

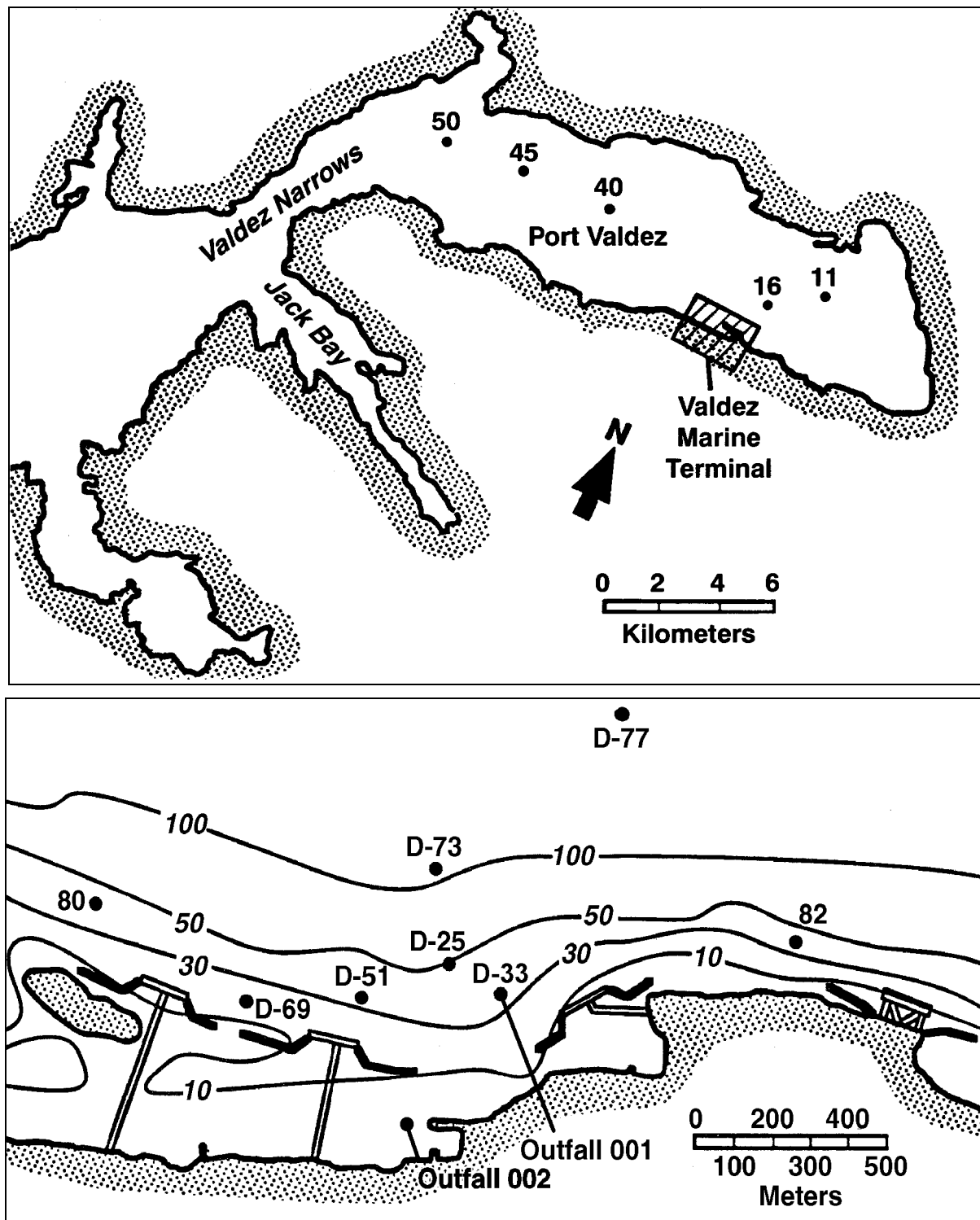


Figure 2: Environmental monitoring sampling stations in Port Valdez. The upper panel depicts stations in the Port Valdez area and the lower panel shows the stations near the terminal and the outfall locations. The rectangle in the upper panel indicates the approximate area shown in the lower panel. The contour lines in the lower panel show depths in fathoms. (Figure modified from Feder and Shaw, 1996.)



Sediment monitoring shall be conducted annually in September or October at the following established stations (see Part III.B.3.) above for station locations:

Diffuser: D33  
Near-field Shallow: D25, D51, D69, 80, 82  
Near-field Deep: D73, D77, 16  
Far-field Deep: 11, 40, 45, 50

The description of the gross characteristics of the sediment shall also address the presence or absence of oil, oil globules, tar balls, and visible sheen in the aqueous or solid phase of the sediment samples. These written descriptions shall be included in the monitoring report.

Sediment samples shall be archived for one year unless EPA and ADEC request that samples be held for a longer period.

- a. Sediment Chemistry. The permittee shall collect three replicate samples at the stations identified in Part III.B.3. All samples collected at station D33 shall be analyzed. For all other stations, one replicate shall be analyzed initially and the other two replicates shall be archived (except in the fourth year of the permit, see next paragraph). For all stations except D33, if the first sample has hydrocarbon concentrations significantly different than the past results for that station, then the other two replicates shall be analyzed. The second and third replicate samples from a station shall be analyzed whenever the sum of the concentrations of all polynuclear aromatic hydrocarbons analytes (TARO) from the first replicate lies above the 95% confidence interval surrounding the arithmetic mean (calculated using logarithmically transformed data) of TARO values determined at that station measured from 1989 through 1996 as part of the NPDES permit.

In the fourth year of the permit, the permittee shall collect and analyze three replicate samples at the stations identified in Part III.B.3.

Sediment samples shall be analyzed for polynuclear aromatic hydrocarbons (PAH) and total organic carbon (TOC). Hydrocarbon analyses shall be performed using the NOAA methods described by MacLeod et al. (1985) and the NOAA modifications described by Krahn et al. (1988).

Sediment chemistry data shall be normalized to both dry weight and to organic carbon.

Results of sediment hydrocarbon analyses shall be compared to historic Port Valdez values and to accepted published levels of acceptable PAH levels in marine sediments. Criteria which may be used for comparison include EPA's draft Sediment Quality Criteria (U.S. EPA 1993c, d, e; State of Washington marine sediment quality standards - chemical criteria (WAC, 1991), and NOAA's Effects Range-Low and Effects Range-Medium criteria (Long and Morgan, 1990; Long 1992). If the above criteria are revised or new criteria are published, the most recent criteria should be used for comparison.

- b. Benthic Abundance and Community Structure. Sampling methods and analyses conducted shall be those used by Dr. Feder (Chapter 2 in Feder and Shaw, 1996) in previous studies of Port Valdez for the NPDES permit, or the equivalent, as determined by EPA in consultation with ADEC prior to sampling. The sampling stations are identified in Table 5 and Figure 2.

6. Annual Data Report.

- a. The Permittee shall submit an annual data report to EPA and ADEC by July 15 of the year following each sampling period. The Permittee shall submit 5 (five) copies of the report to ADEC. The report shall:
  - (1) Describe sampling and analytical methodologies used and quality assurance/quality control procedures,
  - (2) Discuss how the monitoring addresses the environmental monitoring program purpose (see Part III.B.1.) and objectives (see Part III.B.2.) by using appropriate descriptive, analytical, and statistical methods to test for and describe impacts of the effluent on the receiving water, sediment, and benthic community, and
  - (3) Provide an interpretative summary of the results of Parts III.B.4 and 5. of the permit which addresses the magnitude and environmental significance of

observed changes in parameters over time and distance from the outfall.

- b. At the written request of ADEC, the Permittee shall discuss specific ADEC or public comments on the annual data reports in writing.

7. Supplemental Overview Report.

- a. The Permittee shall prepare a supplemental comprehensive analytical and interpretative overview report. This report shall be submitted to EPA no later than September 15 of the year following the sampling conducted during the fourth year of the permit. The Permittee shall submit 5 (five) copies of the report to ADEC. The overview report shall address the informational goals of the Annual Data Report identified above and also:
  - (1) Evaluate the environmental monitoring conducted during the current permit in relation to the historical environmental monitoring data base, and
  - (2) Provide recommendations for future environmental monitoring.
- b. At the written request of ADEC, the Permittee shall discuss specific ADEC or public comments on the overview report in writing.

8. Digital Data Coding and Submission Requirements. The Permittee shall submit the environmental monitoring data to EPA in electronic format using a commercially available software package by July 15 of the year following each sampling period.

9. Continuation of Monitoring. The environmental monitoring program shall be continued annually until the permit is reissued.

10. Adjusted Monitoring. Based on the results of the monitoring reports required under Parts III.B.6. and 7. of the Permit, the Permittee may be required to adjust sampling frequency, modify sampling locations, and/or adjust the sampling design. EPA shall not reduce the requirements without the concurrence of ADEC. Increases in the sampling frequency, the number of monitoring stations, and additional monitoring requirements shall be made as part of a permit modification in accordance with 40 CFR 122 and

124. ADEC requests for increases in sampling frequency, the number of monitoring stations, and additional monitoring requirements shall be made in accordance with Part V.M. (Reopener Clause) of this Permit.

11. Annual Public Meeting. The Permittee shall meet with ADEC in a public forum at the request of ADEC, at least once each year, to discuss the results of the monitoring reports required under Parts III.B.6. and 7. and the Best Management Practices (BMP) Plan and Pollution Prevention Requirements required under Part II of this permit.

### **C. Quality Assurance Requirements**

1. Implementation. The Permittee shall follow the procedures given in the "Quality Assurance Plan, Valdez Marine Terminal Laboratory, Water and Wastewater Analysis" (hereafter QA Plan) or in accordance with subsequent amendments. The Permittee shall amend this Plan, to incorporate practices to achieve the objectives and specific requirements listed below.

A copy of the QA Plan shall be submitted to EPA for approval, in consultation with ADEC, no later than 60 days from the effective date of this NPDES permit. EPA, in consultation with ADEC, shall have the right to disapprove the QA Plan. If neither Agency disapproves of the QA Plan within 60 days of receipt by EPA, it shall be deemed approved. The QA Plan shall be implemented no later than 150 days from the effective date of this NPDES permit.

2. Objectives. The objectives of the QA Plan shall be to assist in planning for the collection and analysis of samples in support of the effluent monitoring requirements at Part I. of this permit and in explaining data anomalies when they occur.
3. Monitoring Equipment. All monitoring equipment shall be maintained in good working order and routinely calibrated. Calibration records shall be kept on all laboratory equipment and effluent monitoring equipment, including but not limited to effluent flow meters, pH meters, temperature meters, and weighing balances.
4. QA Plan Requirements. Throughout all sample collection and analysis activities, the Permittee shall use Interim Guidelines and Specifications For Preparing Quality Assurance Project Plans, QAMS-005/80, December 29, 1980, or Draft Interim Final

Requirements for Quality Assurance Plans, EPA QA/R-5, or any subsequent revisions to the guidance documentation. The Permittee's QA Plan shall be prepared in the format which is specified in QAMS-005/80 or EPA QA/R-5. The following reference may be helpful in preparing the QA Plan for this permit, You and Quality Assurance in Region 10, EPA, Region 10, Quality and Data Management Program, March 1988.

At a minimum the Plan shall include the following information:

- a. Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the Permittee.
  - b. Sample collection techniques and quality samples (field blanks, replicates, duplicates, control samples, types of containers, holding times, etc).
  - c. Sample preservation methods.
  - d. Sample shipping requirements.
  - e. Instrument calibration procedures and preventative maintenance (frequency, standard, spare parts).
  - f. Analytical methods (including quality control checks, quantification/detection levels, precision and accuracy requirements).
  - g. Qualification and training of personnel.
5. DMR Certification. The Permittee shall require the responsible laboratory manager of each laboratory providing measurement results in support of this permit to sign and submit to the Permittee following the statement with the analytical results:

*I certify that this data is in compliance with requirements under 40 CFR 136 and other analytical requirements specified in NPDES Permit No. AK-002324-8.*

Signature:\_\_\_\_\_ Date:\_\_\_\_\_

6. Verification. Annually, no later than January 31, the Permittee shall verify that all laboratories used in the previous year for the purpose of measuring permit samples have facilities, equipment, staff, quality assurance programs, and quality control procedures necessary to perform sample measurements in support of the permit.
7. Documentation. The Permittee shall maintain a copy of the most current QA Plan at the facility and provide the QA Plan to all laboratories which conduct analysis pursuant to requirements of this NPDES permit.
8. QA Plan Modification. The Permittee shall amend the QA Plan when conditions or requirements of the quality assurance practices related to the NPDES permit change. Any such changes to the QA Plan shall be reported in writing to EPA and ADEC and shall be consistent with the objectives and specific requirements listed in the permit. EPA, in consultation with ADEC, shall have the right to disapprove of changes to QA Plan within 60 days of receipt by EPA, after which time such changes shall be deemed approved.

**D. Representative Sampling (Routine and Non-Routine Discharges).**  
The Permittee shall collect all effluent samples from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the Permittee shall collect additional samples at the appropriate outfall(s) whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The Permittee shall analyze the additional samples for those parameters limited in Part I. of this permit that are likely to be affected by the discharge.

The Permittee shall collect such additional samples as soon as possible after the spill or discharge. The samples shall be analyzed in accordance with paragraph F., below. In the event of an anticipated bypass as defined in Part VI. of this permit, the Permittee shall collect and analyze additional samples as soon as the bypassed effluent reaches the outfall. The Permittee shall report all additional monitoring in accordance with paragraph I., below.

- E. Reporting of Monitoring Results.** The Permittee shall summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1). The Permittee shall submit reports monthly, postmarked by the 15th day of the following month. The Permittee shall sign and certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. of this permit ("Signatory Requirements"). The Permittee shall submit the originals of these documents to the Director, Office of Water, with copies to ADEC at the following addresses:

original to: United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, OW-133  
Seattle, Washington 98101

copy to: Alaska Department of Environmental Conservation  
Attn: Industrial Operations  
555 Cordova Street  
Anchorage, Alaska 99501

copy to: Alaska Department of Environmental Conservation  
Prince William Sound District Office  
P.O. Box 1709  
Valdez, Alaska 99686

- F. Monitoring Procedures.** Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit or are approved in advance by EPA.
- G. Additional Monitoring by Permittee.** If the Permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the Permittee shall include the results of this monitoring in the calculation and reporting of the data submitted in the DMR. The Permittee shall indicate on the DMR whenever it has performed additional monitoring, and shall explain why it performed such monitoring.

Upon request by the Director, the Permittee shall submit results of any other sampling, regardless of the test method used.

**H. Records Contents.** All effluent monitoring records shall bear the handwritten signature of the person who prepared them. In addition, all records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the names of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

**I. Retention of Records.** The Permittee shall retain records of all monitoring information, including, but not limited to, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended by request of the Director or ADEC at any time.

**J. Twenty-four Hour Notice of Noncompliance Reporting.**

1. The Permittee shall report the following occurrences of noncompliance by telephone within 24 hours from the time the Permittee becomes aware of the circumstances:
  - a. any noncompliance that may endanger health or the environment;
  - b. any unanticipated bypass that results in or contributes to an exceedance of any effluent limitation in the permit (See Part IV.G., "Bypass of Treatment Facilities");
  - c. any upset that results in or contributes to an exceedance of any effluent limitation in the permit (See Part IV.H., "Upset Conditions") or



- d. any violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
  2. The Permittee shall also provide a written submission within five days of the time that the Permittee becomes aware of any event required to be reported under subpart 1 above. The written submission shall contain:
    - a. a description of the noncompliance and its cause;
    - b. the period of noncompliance, including exact dates and times;
    - c. the estimated time noncompliance is expected to continue if it has not been corrected;
    - d. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
    - e. the results of any monitoring data required under Paragraph III.F., above.
  3. The Director may, at his sole discretion, waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Compliance Section in Seattle, Washington, by telephone, (206) 553-1213.
  4. Reports shall be submitted to the addresses in Part III.E. ("Reporting of Monitoring Results").
- K. Other Noncompliance Reporting.** The Permittee shall report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.E. ("Reporting of Monitoring Results") are submitted. The reports shall contain the information listed in Part III.J.2. ("Twenty-four Hour Notice of Noncompliance Reporting").
- L. Changes in Discharge of Toxic Substances.** The Permittee shall notify the Director and ADEC as soon as it knows, or has reason to believe:
  1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following "notification levels":
    - a. One hundred micrograms per liter (100 ug/l);

- b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
  - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
  - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following "notification levels":
- a. Five hundred micrograms per liter (500 ug/l);
  - b. One milligram per liter (1 mg/l) for antimony;
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
  - d. The level established by the Director in accordance with 40 CFR 122.44(f).

**M. Reporting Requirements for Construction/Maintenance Activities.**

The Permittee shall notify EPA and ADEC in writing of all expected dates and times of abrasive blasting projects at least 15 days prior to project startup (see Part II.E.8.b. of this permit). This notification may be done for the entire project prior to initial startup.

The Permittee shall record (1) the construction/maintenance activity performed, (2) the days during which these were conducted, and (3) the type and amount of material used (e.g., type of blasting grit). This information shall be made available to the EPA and ADEC upon request.

#### **IV. COMPLIANCE RESPONSIBILITIES**

**A. Duty to Comply.** The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. The Permittee shall give reasonable advance notice to the Director and ADEC of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

**B. Penalties for Violations of Permit Conditions.**

1. Civil and Administrative Penalties. Sections 309(d) and 309(g) of the Act provide that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be subject to a civil or administrative penalty, not to exceed \$27,500 per day for each violation (or as adjusted for inflation pursuant to the Federal Civil Penalty Inflation Adjustment Act of 1990 as amended by the Debt Collection Improvement Act of 1996 [31 U.S.C. 3701 note; Public Law 104-134, enacted April 26, 1996; 110 Stat. 1321]).
2. Criminal Penalties:
  - a. Negligent Violations. Section 309(c)(1) of the Act provides that any person who negligently violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or by both.
  - b. Knowing Violations. Section 309(c)(2) of the Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act shall be punished by a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both.
  - c. Knowing Endangerment. Section 309(c)(3) of the Act provides that any person who knowingly violates a permit condition implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment

of not more than 15 years, or both. A person that is an organization shall be subject to a fine of not more than \$1,000,000.

- d. **False Statements.** Section 309(c)(4) of the Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both.

Except as provided in permit conditions in Part IV.G., ("Bypass of Treatment Facilities") and Part IV.H., ("Upset Conditions"), nothing in this permit shall be construed to relieve the Permittee of the civil or criminal penalties for noncompliance.

- C. Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.
- D. Duty to Mitigate.** The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance.** The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances.** Solids, sludges, or other pollutants removed in the course of treatment or control of water and waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the United States, except as specifically authorized in Part I.A.

**G. Bypass of Treatment Facilities.**

1. Bypass not exceeding limitations. The Permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.
2. Notice.
  - a. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
  - b. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required under Part III.J. ("Twenty-four Hour Notice of Noncompliance Reporting").
3. Prohibition of bypass.
  - a. Bypass is prohibited, and the Director or ADEC may take enforcement action against the Permittee for a bypass, unless:
    - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
    - (3) The Permittee submitted notices as required under paragraph 2 of this Part.
  - b. The Director and ADEC may approve an anticipated bypass, after considering its adverse effects, if the Director and ADEC determine that it will meet the three conditions listed above in paragraph 3.a. of this Part.

## **H. Upset Conditions.**

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the Permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the Permittee shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An upset occurred and that the Permittee can identify the cause(s) of the upset;
  - b. The permitted facility was at the time being properly operated;
  - c. The Permittee submitted notice of the upset as required under Part III.J., Twenty-four Hour Notice of Noncompliance Reporting; and
  - d. The Permittee complied with any remedial measures required under Part IV.D., Duty to Mitigate.
3. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

**I. Toxic Pollutants.** The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

**J. Planned Changes.** The Permittee shall give notice to the Director and ADEC as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under Part III.L. ("Changes in Discharge of Toxic Substances").

The Permittee shall give notice to the Director and ADEC as soon as possible of any planned changes in process or chemical use whenever such change could significantly change the nature or increase the quantity of pollutants discharged.

- K. **Anticipated Noncompliance.** The Permittee shall also give advance notice to the Director and ADEC of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

## V. GENERAL PROVISIONS

- A. Permit Actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- B. Duty to Reapply.** If the Permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- C. Duty to Provide Information.** The Permittee shall furnish to the Director and ADEC, within the time specified in the request, any information that the Director or ADEC may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director or ADEC, upon request, copies of records required to be kept by this permit.
- D. Other Information.** When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to the Director or ADEC, it shall promptly submit the omitted facts or corrected information.
- E. Signatory Requirements.** All applications, reports or information submitted to the Director and ADEC shall be signed and certified.
1. All permit applications shall be signed as follows:
    - a. For a corporation: by a responsible corporate officer or by a manager meeting the requirements of 40 CFR 122.22(a)(1)(ii).
    - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
    - c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.



2. All reports required by the permit and other information requested by the Director or ADEC shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described above and submitted to the Director and ADEC, and
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company.
3. Changes to authorization. If an authorization under Part V.E.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph V.E.2. must be submitted to the Regional Administrator and ADEC prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this Part shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- F. Availability of Reports.** Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with this permit shall be available for public inspection at the offices of the state water pollution control agency and the Director and ADEC. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.
- G. Inspection and Entry.** The Permittee shall allow the Director, ADEC, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:
1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.
- H. Oil and Hazardous Substance Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of the Act.
- I. Property Rights.** The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- J. Severability.** The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**K. Transfers.** This permit may be automatically transferred to a new Permittee if:

1. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;
2. The notice includes a written agreement between the existing and new Permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify, or revoke and reissue the permit.

If the notice described in paragraph 3 above is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

**L. State Laws.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

**M. Reopener Clause.**

1. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Act, as amended, if the effluent standard, limitation, or requirement so issued or approved:
  - a. Contains conditions more stringent than any effluent limitation in the permit; or
  - b. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

2. This permit may be modified, or alternatively, revoked and reissued in accordance with 40 CFR 122 and 124, to address the application of different permit conditions, if new information, such as future water quality studies or waste load allocation

determinations, or new regulations such as changes in water quality standards, show the need for different conditions.

3. At the written request of ADEC, this Permit may be modified, or alternatively revoked and reissued to address the application of different permit conditions if new information, such as future water quality studies and waste load allocation determinations, or new regulations, such as changes in water quality standards, show the need for different conditions. A modification of the permit shall be conducted in accordance with the requirements of 18 AAC 15.120 through 18 AAC 15.170.

## VI. DEFINITIONS and ACRONYMS

The following terms, when used in this permit, have the meanings given below:

1. *ADEC* means the Alaska Department of Environmental Conservation.
2. *Administrator* means the Administrator of USEPA, or an authorized representative.
3. *BETX* means benzene, ethylbenzene, toluene, and xylene.
4. *Ballast water* means harbor, river, and seawater added to tankers' cargo tanks to maintain proper ship stability when not loaded with cargo.
5. *Bilge water* means water which collects in the lower internal parts of a vessel and which may be contaminated with oil, grease, rust and scale, and/or cleaning agents.
6. *BMP* means best management practices.
7. *BTTs* means ballast water treatment tanks.
8. *BWT* means ballast water treatment facility.
9. *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility, as specifically defined at 40 CFR 122.41(m)
10. *Daily discharge* means the discharge measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For limitations expressed in units of mass or volume, the *daily discharge* is calculated as the total mass or volume discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
11. *Daily maximum* - see Maximum Daily.
12. *Degrees C* means degrees Celsius.
13. *Director* means the Director of the Office of Water, U.S. EPA Region 10, or an authorized representative.
14. *DMR* means Discharge Monitoring Report.
15. *DO* means dissolved oxygen.

16. *gpd* means gallons per day.
17. *Grab sample* means a single sample or measurement taken at a specific time or over as short a period of time as is feasible.
18. *IC<sub>25</sub>* means the point estimate of the toxicant concentration that would cause a 25 percent reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (i.e., USEPA Interpolation Method).
19. *LC<sub>50</sub>* means the concentration of effluent that is acutely toxic to 50 percent of the test organisms exposed.
20. *Maximum* means the highest measured discharge or pollutant concentration in a waste stream during the time period specified.
21. *Maximum daily* means the highest daily discharge measured during the monitoring month.
22. *mgd* means million gallons per day.
23. *mg/l* means milligrams per liter.
24. *ml* means milliliter.
25. *Monitoring month* shall mean the period consisting of the calendar weeks which end in a given calendar month.
26. *Monthly average* means the average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. As a permit limitation monthly average means the highest allowable value thus calculated.
27. *NPDES* means National Pollutant Discharge Elimination System.
28. *PAH* means polynuclear aromatic hydrocarbon.
29. *Regional Administrator* means the EPA Region 10 Regional Administrator, or an authorized representative.
30. *Severe property damage* is specifically defined at 40 CFR 122.41(m)(ii) and means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the

absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

31. *SU* means standard units for pH measurement.
32. *TAH* means total aromatic hydrocarbons.
33. *TAqH* means total aqueous hydrocarbons.
34. *TARO* means total aromatic hydrocarbons.
35. *TOC* means total organic carbon.
36. *TSS* means total suspended solids.
37. *TU* means toxic unit as in *TUc* (chronic toxic unit) and *TUa* (acute toxic unit). *TUa* means acute toxic unit and is a measure of acute toxicity; the number of *TUa* in the effluent is calculated as  $100/LC_{50}$ , where the  $LC_{50}$  is measured in percent effluent. *TUc* means chronic toxic unit and is a measure of chronic toxicity; the number of *TUc* is calculated as  $100/IC_{25}$ , where the  $IC_{25}$  is measured in permit effluent.
38. *ug/l* means micrograms per liter.
39. *Upset* is specifically defined at 40 CFR 122.41(n) and means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
40. *VMT* means Valdez Marine Terminal.
41. *Waste stream* means any non-de minimis stream of pollutants within the Permittee's facility that enters any permitted outfall or navigable waters. This includes spills and other unintentional, non-routine or unanticipated discharges.
42. *WET* means whole effluent toxicity testing.
43. *3/week* means three times per week.
44. *24-hour composite* sample shall mean a flow-proportioned mixture of not less than 8 evenly spaced discrete aliquots. Each aliquot shall be a grab sample which is as large as possible, but not less than 60 ml. Each aliquot shall be

collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.



## VII. REFERENCES

- Alyeska. 1996.  
Best Management Practice Plan: Ballast Water Treatment Facility (Alyeska Valdez Marine Terminal). MP-69-1.
- Feder, H.M. and D.G. Shaw. 1996.  
Environmental monitoring studies in Port Valdez, Alaska, 1995. Final Report. Prepared for Alyeska Pipeline Service Co. 1996.
- Krahn, M.M., C.A. Wigren, R.W. Pearce, L.K. Moore, R.G. Bogar, W.D. MacLeod, S.L. Chan, and R.W. Brown. 1988.  
Standard analytical procedures of the NOAA National Analytical Facility. NOAA Technical Memorandum NMFS F/NWC-153.
- Long, E.R. 1992.  
Ranges in chemical concentrations in sediments associated with adverse biological effects. Marine Pollution Bulletin, 24:38-45.
- Long, E.R. and L.G. Morgan. 1990.  
The potential for biological effects of sediment-sorbed contaminants tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52.
- MacLeod, W.D., Jr., D.W. Brown, A.J. Friedman, O. Maynes, and R.W. Pearce. 1985.  
Standard analytical procedures of NOAA National Analytical Facility 1984-85. Extractable Toxic Organic Compounds. Prepared for the NOAA National Status and Trends Program. NOAA Tech. Mem. NMFS F/NWC-64.
- U.S. EPA. 1980.  
Interim Guidelines and Specifications For Preparing Quality Assurance Project Plans, QAMS-005/80, December 29, 1980.
- U.S. EPA. 1993a.  
Guidance manual for developing best management practices. Office of Water. EPA 833-B-93-004. October 1993.
- U.S. EPA. 1993b.  
Methods for Measuring Acute Toxicity of Effluents to Freshwater and Marine Organisms, Fourth Edition, EPA/600/4-90/027F, August 1993.

U.S. EPA. 1993c.

Sediment quality criteria for the protection of benthic organisms: Acenaphthene. Draft EPA Document EPA-822-R-013, Office of Science and Technology, Health, and Ecological Criteria Division.

U.S. EPA. 1993d.

Sediment quality criteria for the protection of benthic organisms: Flouranthene. Draft EPA Document EPA-822-R-013, Office of Science and Technology, Health, and Ecological Criteria Division.

U.S. EPA. 1993e.

Sediment quality criteria for the protection of benthic organisms: Phenanthrene. Draft EPA Document EPA-822-R-013, Office of Science and Technology, Health, and Ecological Criteria Division.

U.S. EPA. 1995.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, EPA/600/R-95/136, August 1995.

U.S. EPA, Region 10. 1988.

You and Quality Assurance in Region 10. Quality and Data Management Program, March 1988.

WAC. 1995.

Sediment management standards. Chapter 173-204. Washington Administrative Code. pp. 1-28.